

## HEAD RUSH TECHNOLOGIES WHITE PAPER

# CARABINER CLEANING AND MAINTENANCE

---

NOVEMBER 2020

The carabiners used in Head Rush Technologies devices are designed and manufactured to provide reliable service for the highest throughput facilities in the world, however like all mechanical systems proper care and maintenance will increase functional lifespan. This white paper will detail approved cleaning procedures to ensure maximum lifespan and restore function of the locking mechanism to heavily used or dirty TRUBLUE carabiners.

The following guidelines are only for Head Rush Connectors and should not be applied to other hardware. Always follow manufacturers' instructions for care and maintenance of any life safety products.



*Regular Maintenance:* Many facilities regularly use compressed air to keep their TRUBLUE carabiners in good working order. Depending on the traffic and environment this could be weekly, monthly, or as needed and is a great step to keep carabiners

clean and prevent issues from chalk, dirt, or other contaminant build up. A regular blast of pressurized air from a can or compressor will keep your carabiners working well long-term, especially in chalky or dusty environments.

*Deep Cleaning:* If carabiner function starts to diminish, usually first seen as a gate that is slow to rotate into a locked position or completely failing to automatically close and lock, a deep cleaning may be in order. If regular maintenance has not been performed, a good first step is to clean the gate and collar with compressed air. If this does not fully restore function there are two methods to safely clean and restore function.

1. Isopropyl Alcohol: Fill a spray bottle with a 70% Isopropyl Alcohol solution and thoroughly spray the gate and collar pivot points. Work the gate repeatedly while spraying to dissolve or dislodge any foreign materials. This solution is approved for webbing disinfection so it is ok if overspray hits the TRUBLUE webbing. Continue to spray solution into the gate mechanisms until function is restored. If the carabiner continues to operate slowly or incompletely try the soap and water cleaning method detailed below.

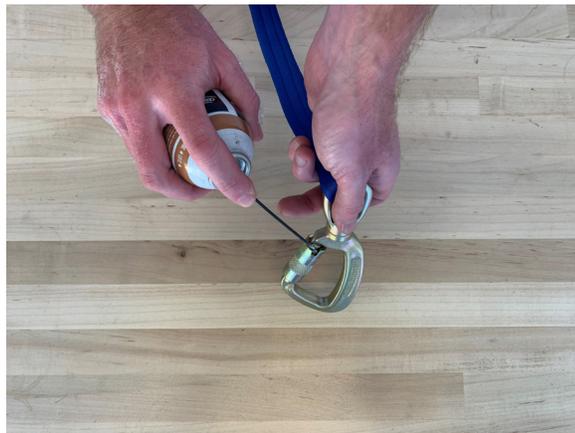


2. Soap and Water: Fill a small container with warm water and mild soap. A quality dish soap will remove both dirt and oils accumulated from use that may be inhibiting proper function. Submerge the entire carabiner into the water solution and rapidly work the gate of the carabiner 5-10 times while moving it back and forth in the water to dislodge any contaminates. Don't worry if the bottom of the webbing gets a little wet. Once the carabiner function returns rinse it (and the webbing if needed) with clean water and let it thoroughly dry. It is vital the carabiner is completely

dried after this step, and it should be working properly with a crisp gate action. If gate action is not fully restored repeat as needed.



*Lubrication:* Lubrication of your carabiner is meant to help the carabiner maintain function for a longer time than it might without, and is especially helpful in harsher outdoor environments where frequent exposure to moisture or debris is the norm. It is important to note that lubrication alone will generally not restore proper function of a “sticky” carabiner. Only properly functioning carabiners with crisp automatic locking of the gate should be lubricated. All lubrication used should be a dry-type lubrication such as powdered graphite or PTFE-based and NOT petroleum-based lubrications (grease or oils). Using a petroleum-based product will lead to slow, dirty carabiners over time and could damage the textiles used in the system.



### **Conclusion**

In most scenarios involving slow, sticky, or incomplete gate function these cleaning and lubrication steps will restore full carabiner function and allow for continued use. If full carabiner function cannot be restored after thorough cleaning and lubrication the webbing assembly must be replaced immediately.